



# UNITED STATES PATENT AND TRADEMARK OFFICE

50

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/533,409	03/22/2000	Yao Wang	E0295/7106(RAS)	8616

7590 07/27/2005

Robert A Skrivanek Jr  
Wolf Greenfield & Sacks PC  
Federal Reserve Plaza  
600 Atlantic Avenue  
Boston, MA 02210

EXAMINER

MIRZA, ADNAN M

ART UNIT	PAPER NUMBER
----------	--------------

2145

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/533,409

Applicant(s)

WANG ET AL.

Examiner

Adnan M. Mirza

Art Unit

2145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05/09/2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-61 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-61 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

20

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staheli et al (5,537,533) and in view of Miskowiec (5,915,095).

As per claim 1, 29, 45, 52 Staheli disclosed a method, comprising acts of: detecting a decrease in performance of a first host computer that results from the first host computer continuing to function but a decrease performance level (col. 10, lines 10-21), wherein the first computer provides computational resources to perform a task (col. 5, lines 36-45); and

However Staheli did not go in details to disclose automatically configuring a second host computer to provide additional computational resources for the first host computer in response to the act of detecting, so that the first and second host computers simultaneously provide computational resources to perform the task.

In the same field of endeavor Miskowiec disclosed an exemplary apparatus in accordance with the principles of the present invention concerns balancing a plurality of received processing

Art Unit: 2145

requests among a plurality of servers. The processing requests are received from one or more network nodes. The apparatus includes a plurality of communication ports are in operative communication with at least a first server, a second server and a first network node. At least each of the first and the second servers are operative to run a common application (col. 2, lines 52-61).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated the automatically configuring a second host computer to provide additional computational resources for the first host computer in response to the act of detecting as taught by Miskowiec in the method of Staheli to substantially minimize a user's involvement in selecting a server to run a particular application with as prompt a processing time as is then available (col. 2, lines 27-33).

3. As per claim 2 Staheli-Miskowiec disclosed wherein the first host computer is coupled to at least one first storage device that is accessible to the first host computer and in which data of the first host computer is stored (Staheli, col. 9, lines 12-24), and wherein the act of automatically configuring the second host computer includes an act of (Miskowiec, col. 8, lines 52-63): replicating the data of the first host computer from the at least one first storage device to at least one second storage device that is accessible to the second host computer (Staheli, col. 09, lines 56-65).

Art Unit: 2145

4. As per claim 3 Staheli-Miskowiec disclosed wherein the act of replicating the data is performed without the first host computer copying the data from the at least one first storage device (Staheli, col. 5, lines 36-45).

5. As per claim 4 Staheli-Miskowiec disclosed wherein the act of replicating the data is performed without the second host computer copying the data to the at least one second storage device (Staheli, col. 6, lines 24-34).

6. As per claim 5 Staheli-Miskowiec disclosed wherein the act of replicating the data is performed without the second host computer copying the data to the at least one second storage device (Staheli, col. 6, lines 36-44).

7. As per claims 6,25,30,46 Staheli disclosed wherein the act of replicating the data includes an act of replicating all of the data that is used by the first host computer and stored on the at least one first storage device to the at least one second storage device (Staheli, col. 5, lines 36-45), and wherein the act of automatically configuring further includes acts of: modifying a portion of the replicated data that corresponds to configurable parameters of the first host computer; and bringing the secondary host computer on line using the replicated data and the modified portion of the replicated data (Staheli, col. 6, lines 24-45).

8. As per claims 7,8,13,14,21,26,33,34,35,39,38,49,50,56 Staheli-Miskowiec disclosed wherein the act of modifying the portion of the replicated data includes an act of modifying the

Art Unit: 2145

portion of the replicated data that corresponds to a network address of the first host computer to correspond to a different network address (Staheli, col. 8, lines 56-67), the method further comprising an act of: modifying a network director to redirect at least one communication addressed to the network address of the first host computer to the different network address (Staheli, col. 5, lines 63-67 & col. 6, lines 1-7).

9. As per claim 9 Staheli-Miskowiec disclosed wherein the act of automatically configuring the second host computer further includes an act of: shutting down the second host computer prior to the act of replicating (Miskowiec, col. 8, lines 52-63).

10. As per claims 10,48 Staheli-Miskowiec disclosed wherein the first host computer is not identical to the second host computer, and wherein the act of replicating the data includes an act of: replicating only a portion of the data that is used by the first host computer and stored on the at least one first storage device to the at least one second storage device (Staheli, col. 5, lines 36-53), the portion of the data corresponding to data of the first host computer that can be at least one of used and executed by the second host computer without modification (Staheli, col. 9, lines 55-65).

11. As per claims 11,12,32,37,47,58 Staheli-Miskowiec disclosed wherein the act of replicating the data includes an act of replicating the data from the at least one first storage device that is located in a first storage system to the at least one second storage device that is located in a second storage system (Staheli, col. 9, lines 55-65).

12. As per claim 15 Staheli-Miskowiec disclosed wherein the act of automatically configuring further includes an act of: transforming at least a portion of the replicated data of the first host computer for use with the second host computer when the second host computer is not identical to the first host computer (Staheli, col. 5, lines 36-53).

13. As per claim 16 Staheli-Miskowiec disclosed wherein the act of automatically configuring further includes an act of: bringing the second host computer on line using the replicated data of the first host computer (Miskowiec, col. 8, lines 52-63).

14. As per claims 17,18,42,43 Staheli-Miskowiec disclosed further comprising acts of: detecting an increase in the performance of the first host computer subsequent to the act of automatically configuring; and shutting down the second host computer in response to the act of detecting the increase in the performance of the first host computer (Miskowiec, col. 8, lines 52-63).

15. As per claims 19,23,55,59 Staheli-Miskowiec disclosed wherein the first host computer is coupled to a first storage system that includes at least one first storage device that is accessible to the first host computer and in which data of the first host computer is stored (Staheli, col. 9, lines 12-24), wherein the second host computer is coupled to a second storage system that includes at least one second storage device that is accessible to the second host computer and in which data of the second host computer is stored, the second storage system mirroring the data of the second

Art Unit: 2145

host computer that is stored on the at least one second storage device to at least one third storage device (Staheli, col. 9, lines 47-64), and wherein the act of automatically configuring the second host computer includes acts of: shutting down the second host computer; discontinuing the mirroring of the data of the second host computer; and replicating, subsequent to the act of discontinuing, the data of the first host computer from the at least one first storage device to the at least one second storage device (Miskowiec, col. 8, lines 52-63).

16. As per claims 20,25 Staheli-Miskowiec disclosed wherein the act of replicating the data includes an act of replicating all of the data that is used by the first host computer and stored on the at least one first storage device to the at least one second storage device (Staheli, col. 9, lines 12-24), and wherein the act of automatically configuring further includes acts of: modifying a portion of the replicated data that corresponds to configurable parameters of the first host computer; and bringing the secondary host computer on line using the replicated data and the modified portion of the replicated data (Miskowiec, col. 8, lines 52-63).

17. As per claims 22,31,36,44,53,54,57 Staheli-Miskowiec disclosed further comprising an act of: communicating the change in operation of the first host computer to a controller that is operatively coupled to a storage system and the first host computer; wherein the act of automatically configuring the second host computer is performed by the controller in response to the acts of detecting and communicating (Miskowiec, col. 8, lines 52-63).



Art Unit: 2145

18. As per claim 24 Staheli-Miskowiec disclosed further comprising an act of: mirroring data of the first host computer that is stored on at least one first storage device that is accessible to the first host computer to at least one second storage device that is accessible to the second host computer; wherein the act of automatically configuring includes an act of discontinuing the mirroring of the data to the at least one second storage device in response to the step of detecting (Staheli, col. 6, lines 24-45).

19. As per claims 27,28,51 Staheli-Miskowiec disclosed further comprising acts of: detecting a decrease in performance of a third host computer; and automatically configuring the second host computer to provide additional computational resources for the third host computer in response to the act of detecting (Miskowiec, col. 8, lines 52-63).

20. As per claims 40,61 Staheli-Miskowiec disclosed wherein the controller includes means for modifying a portion of the replicated data that corresponds to a network address of the first host computer to correspond to a different network address (Staheli, col. 5, lines 63-67 & col. 6, lines 1-7).

21. As per claims 41,60 Staheli- Miskowiec disclosed wherein the controller further includes a transformation engine that transforms at least a portion of the replicated data for use by the second host computer (Staheli, col. 6, lines 68-67).

***Response to Arguments***

Applicant's arguments filed 05/09/2005 have been fully considered but they are not persuasive.

Response to Applicant's argument is as follows.

22. Applicant argued that prior art did not disclose, "detecting a decrease in performance of a first host computer that results from the host computer continuing to function but at decreased performance level".

As to applicant's argument Staheli disclosed thus the bandwidth of the link between the DTUs which is required for effective performance of the present invention is substantially lower than the bandwidth than the bandwidth that would be required to remotely mirror an entire file server (col. 10, lines 10-13). One ordinary skill in the art of the invention knows that Staheli uses the bandwidth criteria to measure the performance or the failure rate hence it do the mirroring of the entire server to another file server that will take the place of the original server and that is interpreted as main server.

***Conclusion***

**23. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

**24.** Any inquiry concerning this communication or earlier communication from the examiner should be directed to Adnan Mirza whose telephone number is (571)-272-3885.

**25.** The examiner can normally be reached on Monday to Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin Wallace can be reached on (571)-272-6159. The fax for this group is (703)-746-7239.

Art Unit: 2145

26. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(703)-746-7239 (For Status Inquiries, Informal or Draft Communications, please label "PROPOSED" or "DRAFT");

(703)-746-7239 (For Official Communications Intended for entry, please mark "EXPEDITED PROCEDURE"),

(703)-746-7238 (For After Final Communications).

27. Any Inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-305-3900.

Any response to a final action should be mailed to:

BOX AF

Commissioner of Patents and Trademarks Washington, D.C.20231

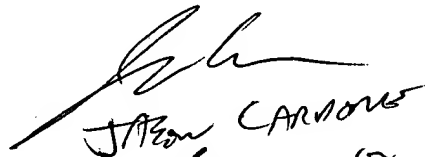
Or faxed to:

Hand-delivered responses should be brought to 4<sup>th</sup> Floor Receptionist, Crystal Park II,  
2021 Crystal Drive, Arlington, VA 22202.

AM

Adnan Mirza

Examiner

  
JASON CARBONE  
Primary Ex 2145